

**University of Arkansas
Cooperative Extension Service
Annual Report of Accomplishments and Results
2001**

GOAL 1: An agricultural system that is highly competitive in the global economy.

Overview:

Arkansas agriculture is a \$5 billion a year business. Major agricultural commodities include rice, soybeans, cotton, wheat, milo, poultry (broilers and turkeys primarily), beef and dairy cattle and various horticultural crops. Forest products are usually not included under agriculture but they are one of the most valuable products we produce in Arkansas.

In FY 2000 we used various methods to extend information and educate producers about how to increase the efficiency of production of those mentioned.

The Arkansas Beef Improvement Program continues in its ninth year to help producers focus on raising beef cattle using an integrated resource management team approach to solving problems. Several producers were able to reduce feeding costs \$10-\$20 per head. Allied programs that helped improve quality and reduce costs included the Arkansas Beef Quality Assurance Program (that has decreased injection site lesions in top butt or top sirloin from 22 percent in 1991 to 2.5 percent in 2000), Arkansas Feedout Program (that helped ranchers evaluate their genetics to increase marketability of future calf crops), Bull Evaluation Program (nearly 300 bulls were evaluated at Extension clinics with 16 percent found questionable).

The DHIA (Dairy Herd Improvement Association) in concert with Extension programming, showed an increase of \$500 per cow or over \$4 million .

Extension poultry since has addressed the issues facing the industry through the Food Safety, Grower Education, Disease Control, Waste Management and Youth Education Programs.

In 2000, a total of 58 crop Research Verification Program fields in cotton, rice, soybeans, wheat and feed grains demonstrated to growers the implementation of interdisciplinary technology designed to improve competitiveness and profitability. Yields on these fields were significantly higher than the statewide average.

Five major programs support cotton education - Nutrient Monitoring, Research Verification, Scouting, Community Wide Insect Management and COTMAN (Computerized Cotton Management System). Farms participating in these programs increased profits by increasing yields and reducing costs.

The DD50 Rice Management Computer Program was used by 1760 growers on almost 700,000 acres (half of the state total). Three computer programs were updated and distributed to agents for use by farmers on soybean variety selection, soybean weed control and irrigation scheduling.

Many demonstrations on a variety of cultural practices were established by agents in all row crops on varieties, fertility, pest control and irrigation.

Specialists completed the production and dissemination of a computerized farm management record keeping system that allows farmers and program professionals to base management decisions on proven research based data on enterprise planning, production, harvesting and marketing of alternative crops and livestock. The program provided information to over 1600 producers or potential producers on alternative agricultural production this year.

Special meetings were held for producers on rabbit, goat, and shiitake mushroom production.

Extension education in turf, ornamental and landscape horticulture and gardening continues to show a steady increase in calls, meetings and contacts in Arkansas. Development of noteworthy public display gardens near major metropolitan areas was begun in FY 2000. New programs in helping individuals interested in starting a wholesale nursery business and to help existing horticultural firms to be more productive were started. The Master Gardener Program added 450 new graduates in 2000 for a total of 1800 active volunteers. The annual Arkansas Flower and Garden Show attracted more than 10,000 in central Arkansas to view gardens, hear seminars and gather new information to improve their home landscapes.

The Farm Family Risk Management Education Program was offered to row crop farmers in 27 eastern Arkansas counties to help them evaluate their financial position and performance and identify viable strategies for improvement. This is a joint project between the University of Arkansas and Arkansas State University.

Forest landowner education remains a significant program emphasis area. Landowner workshops on forest management, wildlife habitat management and watershed management resulted in over 1000 who changed to improved practices to protect this resource. Master Tree Farmer 2000 (a satellite broadcast short course), Ozark Foothills Forest Landowner Project, sawmill operators education and a cooperative project with the Nature Conservancy were new programs implemented this year to address forest landowner educational needs. Using a discussion and priority setting process, the County Extension Councils in one-third of Arkansas counties have identified this issue as a major emphasis for their long range education program.

Key Themes:

1) Animal Production Efficiency -

-AR Goal 1- Program Area 2. Livestock and Forage Production and Management

Overview:

- More than 30,000 farms in Arkansas produce beef cattle. About 97 percent of the beef farms are family owned and operated. Arkansas has approximately 1.77 million head of cattle with a total economic impact of over \$2 billion. Improving beef cattle production efficiency and thus improving profitability is the major issue facing most beef producers.
- The Arkansas dairy industry is an \$115-\$120 million industry with a total economic impact of \$700 million. Dairy producers' major concerns are to identify improvements to enhance production efficiency.
- Arkansas climate and most of its soil and terrain are suited for the production of grass and other forage necessary for livestock production. There are 2 million acres of bermuda grass, fescue and native mixed grasses (total 6 million acres) managed to enhance livestock production and environmental stewardship.
- Arkansas has approximately 160,000 to 180,000 horses with over 60,000 households having a horse. A combination of horse maintenance costs and capital investment make this a \$3.5 billion industry. Recreation is the number one reason for horse ownership.
- Using a discussion and priority setting process, the County Extension Councils in 90 percent of Arkansas counties have identified these issues as a major emphasis for their long range education program.

Impact:

Output Indicators: Beef

- 32424 Number of producers attending educational programs (including Extension-related industry meetings), field days, etc. and receiving educational materials.
- 2296 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on beef cattle nutrition.
- 4725 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on forage production and grazing management.
- 1179 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on selection and genetics.
- 1759 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on animal health and Beef Quality Assurance.

2489 Number of educational materials produced.

Output Indicators: Dairy

- 1622 Number of producers attending educational programs (including Extension-related industry meetings), field days, etc. and receiving educational materials.
- 506 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on management records, nutrition, reproduction and health.
- 632 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on forage production and grazing management.
- 289 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on manure management and cow comfort.
- 386 Number of educational materials produced.

Output Indicators: Horse

- 5008 Number of producers attending educational programs (including Extension-related industry meetings), field days, etc. and receiving educational materials.
- 237 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on general horsemanship and equitation.
- 225 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on horse nutrition.
- 479 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on pasture management and hay quality.
- 162 Number of educational meetings, demonstrations, farm visits and/or field days held to educate clientele on horse health.
- 53 Number of educational materials produced.

Outcome Indicators: Beef

- 1939 Number of participants who changed their animal nutrition management practices.
- 3133 Number of participants who changed their forage and grazing management production practices.
- 1212 Number of participants who changed their genetics and selection practices.
- 1601 Number of participants who changed their animal health management practices.

Outcome Indicators: Dairy

- 175 Number of participants who changed their management practices to improve records and production techniques.
- 361 Number of participants who changed their forage and grazing

- management production practices.
- 128 Number of participants who changed their manure management and cow comfort records.

Outcome Indicators: Horse

- 613 Number of participants who improved their equitation and horsemanship skills.
- 383 Number of participants who changed their horse nutrition management practices.
- 628 Number of participants who changed their horse grazing management practices and improved hay quality.
- 424 Number of participants who changed their horse health management practices.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

-AR Goal 1 - Program Area 3. Poultry Production and Management

Overview:

On a nationwide basis, Arkansas ranks 2nd in broiler production, 3rd in turkey production and 8th in egg production. Although the Arkansas poultry industry provided an estimated 5,000 poultry farm families with nearly \$2.6 billion in farm income, informal discussions with management personnel from integrated poultry companies, contract growers, allied industry personnel, government officials and extension professionals have revealed that the industry is likely to face numerous challenges in the coming decade. These challenges include: Increased global competition which demands peak productive efficiency, compliance with environmental regulations, implementation of new poultry processing regulations, and new disease challenges. Effective solutions will depend on the implementation of the latest scientific information by poultry company personnel and the adoption of the latest production techniques by growers.

Impact:

Output Indicators: Performance Goal 1

- 61 Number of educational meetings, demonstrations, farm visits and/or field days held to educate growers on methods to improve production efficiency.
- 2199 Number of growers attending educational programs (including Extension-related industry meetings), field days and receiving educational materials.
- 43 Number of educational materials produced.

Output Indicators: Performance Goal 2

- 182 Number of educational meetings and conferences conducted to impart the latest scientifically based information to poultry company personnel.

- 3 Number of field demonstrations conducted to document the effectiveness of scientifically based production or processing information.
- 71 Number of poultry company personnel appraised of scientifically based information.

Outcome Indicators: Performance Goal 1

- 391 Estimated number of growers adopting practices outlined in educational programs which improve their productive efficiency through proper methods of sanitation; disease prevention recognition, and control; ventilation; water management; feeder management; hot weather management; litter management; ammonia control; or dust control.

Outcome Indicators: Performance Goal 2

- 192 Number of poultry company personnel adopting scientifically based information involving compliance with environmental regulations, implementation of processing regulations, and disease control.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

2) Plant Production Efficiency -

-AR Goal 1 - Program Area 1. Agronomic Crops Production and Management

Overview:

Arkansas cotton production annually generates farm gate income in excess of \$600 million from around 900,000 acres involving approximately 1700 producers. This industry ranks in the top five nationally.

Arkansas rice production annually generates farm gate income in excess of \$750 million from around 1.4 million acres involving approximately 4,200 producers. This industry ranks number 1 nationally and represents 45% of the nation's rice production.

Arkansas soybean production annually generates farm gate income in excess of \$700 million from around 3.5 million acres involving approximately 7,000 producers. This industry ranks in the top 10 nationally.

Arkansas wheat production annually generates farm gate income in excess of \$200,000 million annually from around 1.0 million acres involving approximately 3,500 producers. This industry

ranks in the top 20 nationally.

Arkansas corn and sorghum production annually generates farm gate income in excess of \$80 million annually from around 220,000 acres involving approximately 1,700 producers. This industry ranks in the top 30 nationally in corn production and in the top 10 in sorghum production.

Using a discussion and priority setting process, the County Extension Councils in three-fourths of Arkansas counties have identified this issue as a major emphasis for their long range education program.

Impact:

Output Indicators: Cotton

- 5050 Number of producers attending educational programs (including Extension-related industry meetings), field days, etc. and receiving educational materials.
- 950 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on variety selection for increased yields and reduced production expenses.
- 1497 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on fertilizer and soil and water management for increased yields and reduced production expenses.
- 2083 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on cultural and integrated pest management (including COTMAN) practices for increased yields and reduced production expenses.
- 1278 Number of educational materials produced.

Output Indicators: Rice

- 10954 Number of producers attending educational programs (including Extension-related industry meetings), field days, etc. and receiving educational materials.
- 1577 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on variety selection for increased yields and reduced production expenses.
- 2451 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on fertilizer and soil and water management for increased yields and reduced production expenses.
- 1940 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on cultural and integrated pest management practices for increased yields and reduced production expenses.
- 937 Number of educational materials produced.

Output Indicators: Soybeans

- 8950 Number of producers attending educational programs (including Extension-related industry meetings), field days, etc. and receiving educational materials.
- 2123 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on variety selection for increased yields and reduced production expenses.
- 2664 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on cultural and integrated pest management (including reduced-rate weed control technology) practices for increased yields and reduced production expenses.
- 1389 Number of educational materials produced.

Output Indicators: Wheat

- 8974 Number of producers attending educational programs (including Extension-related industry meetings) field days, etc. and receiving educational materials.
- 1403 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on variety selection and drainage for increased yields and reduced production expenses.
- 1603 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on fertilizer management for increased yields and reduced production expenses.
- 1596 Number of, demonstrations/on-farm research, farm visits and/or field days for clientele on cultural and integrated pest management practices for increased yields and reduced production expenses.
- 414 Number of educational materials produced

Output Indicators: Corn and Sorghum

- 1763 Number of producers attending educational programs (including Extension-related industry meetings) field days, etc. and receiving educational materials.
- 620 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on variety selection for increased yields and reduced production expenses.
- 578 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on fertilizer and soil and water management for increased yields and reduced production expenses.
- 538 Number of educational meetings, demonstrations/on-farm research, farm visits and/or field days for clientele on cultural and integrated pest management practices for increased yields and reduced production expenses.
- 177 Number of educational materials produced.

Outcome Indicators: Cotton

- 1212 Number of clientele who select improved varieties.
- 1409 Number of clientele using soil and plant testing and irrigation scheduling programs.
- 444784 Number of acres using soil and plant testing and irrigation scheduling programs.
- 1167 Number of participants who utilize integrated pest management programs and the COTMAN plant monitoring program.
- 1146 Number of clientele who change production and/or tillage practices.

Outcome Indicators: Rice

- 3139 Number of clientele who select improved varieties.
- 2975 Number of clientele using soil, plant and water testing.
- 699268 Number of acres impacted by soil, plant and water testing
- 2630 Number of participants who utilize integrated pest management programs.
- 1870 Number of clientele who utilize the DD50 program for improved production efficiency.
- 750747 Number of acres utilizing the DD50 program.

Outcome Indicators: Soybeans

- 4442 Number of clientele who select improved varieties.
- 13112 Number of clientele using soil testing and irrigation scheduling programs.
- 941242 Number of acres impacted by soil testing and irrigation scheduling.
- 3122 Number of participants who utilize integrated pest management programs and the COTMAN plant monitoring program.
- 1146 Number of clientele who change production and/or tillage practices.

Outcome Indicators: Wheat

- 3059 Number of clientele who select improved varieties and implement improved drainage systems.
- 1192 Number of clientele using soil and plant testing programs.
- 297421 Number of acres impacted by soil and plant testing programs.
- 36976 Number of participants who utilize integrated pest management programs.
- 1943 Number of clientele who change production and/or tillage practices or implement improved drainage systems.

Outcome Indicators: Corn and Sorghum

- 1092 Number of clientele who select improved hybrids.
- 471 Number of clientele using soil and plant testing and irrigation scheduling programs.
- 93017 Number of acres impacted by soil and plant testing and irrigation scheduling.
- 376 Number of participants who utilize integrated pest management programs.
- 480 Number of clientele who change production and/or tillage practices.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

3) **Diversified/Alternative Agriculture -**

-AR Goal 1 - Program Area 6. Alternative Agricultural Enterprises

Overview:

There are approximately 43,937 farms in Arkansas. Many of these farms are in dire economic stress. The addition of an alternative crop or livestock enterprise to many of these farms would enhance cash flow, provide extra income, diversify operations, spread risks, and provide year round employment to workers who many times are employed on a seasonal basis.

In this context, alternative agricultural enterprises have the potential to help economically solidify farming operations, thereby, adding both income and stability to farming. Using a discussion and priority setting process, the County Extension Councils in 15 Arkansas counties have identified this issue as a major emphasis for their long range education program.

Impact:

Output Indicators

- 347 Number of educational and technical materials produced to support programs.
- 251 Number of educational meetings, tours, workshops, and/or farm visits to educate clientele on production practices.
- 115 Number of educational meetings, tours, workshops, and/or farm visits to educate producers on farm value-added production.
- 151 Number of educational meetings, tours, workshops, and/or farm visits to educate producers and other interested parties on alternative agricultural marketing.
- 984 Number of producers attending educational programs, field days, etc. and receiving educational materials.

Outcome Indicators

- 122 Number of producers adopting new enterprises.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

4) **Home Lawn and Gardening -**

-AR Goal 1 - Program Area 5. Horticulture Production and Management (Consumer)

Overview:

Consumer demand increases annually for horticultural information and services, with surveys indicating that this subject area is one of the greatest demands in county Extension offices. With more of the state becoming urbanized, demand for consumer horticulture information will increase. To meet this ever-increasing need, a concerted media effort including radio, TV, newspaper and new electronic information systems, continues.

The Master Gardener Program continues to be one of the most successful county Extension programs in the Division of Agriculture, and is one of our most successful volunteer-based programs in Extension. A new program management guide and volunteer manual has been implemented in most counties, and is making the program more manageable. A state advisory board has been a wonderful addition to the program. This 10-person board, with statewide representation, has assisted with the training and with the completion of the management guides.

Impact:

Output Indicators

- 3286 Number of educational publications, mass media, and other materials produced as a means to disseminate new ideas to consumer clientele and other interested parties.
- 259 Number of educational meetings and demonstrations held to educate consumers.
- 85 Number of workshops on horticulturally related topics conducted to educate consumers.
- 37870 Number of individuals attending educational meetings, demonstrations, or workshops and receiving educational materials.

Outcome Indicators

- 21151 Number of participants who report improved satisfaction from leisure gardening activities.
- 23657 Number of participants who improved their home garden or landscape.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

5) Ornamental/Green Agriculture -

-AR Goal 1 - Program Area 5. Horticulture Production and Management (Ornamental and Turf)

Overview:

Continuing growth in outdoor activities has resulted in expanded demand for golf courses, parks and sports fields, as well as managers for these facilities. Economic and ecological benefits of the landscape to property and business continues to drive the landscape design, installation and management. These service industries are probably the fastest growing segment of agriculture and a significant, but largely unrecognized, part of the expanding and diverse economy.

The nursery and greenhouse industry is one of the fastest growing segments of agriculture in the United States, according to USDA. Retail merchandisers purchase large quantities of ornamental plants which make a significant contribution to retail sales in the state and nation. Arkansas' florist industry had sales of more than \$75 million. Local retail garden centers in Arkansas had sales in excess of \$100 million. Wal-mart, the fourth largest purchaser of ornamental plants, in the nation, has horticultural sales in the billions nationwide. Arkansas loses tremendous opportunities to production interests in neighboring states, basically exporting capital and importing massive numbers of ornamental plants into the state to support its wholesale and retail green industry.

A strong "Green Industry" allied industry of equipment, agrichemical and consulting services supports the horticulture industry. Strong industry organizations exist. Division faculty provide leadership to these organizations. A number of educational meetings are held cooperatively with organizations from surrounding states.

Impact:

Output Indicators: Ornamentals

- 4293 Number of educational publications, mass media, and other materials produced as a means to disseminate new technologies to commercial clientele and other interested parties.
- 244 Number of educational meetings, demonstrations, nursery and greenhouse visits or field days held to educate commercial clientele and other interested parties.
- 67 Number of workshops on fertility, production, post harvest, marketing, and/or breeding and selection conducted to educate commercial clientele and other interested parties.
- 6548 Number of individuals attending educational meetings, field days, demonstrations, or workshops and receiving educational materials.

Outcome Indicators: Ornamentals

- 4172 Number of participants that adopted new production technologies.
- 17 Number of new commercial operations.
- 2047 Number of participants that reduced their chemical and fertilizer inputs.

Output Indicators: Turf

- 4283 Number of educational publications, mass media, and other materials produced as a means to disseminate new technologies to commercial clientele and other interested parties.
- 367 Number of educational meetings, demonstrations, farm visits or field days

- held to educate commercial clientele and other interested parties.
- 40 Number of workshops on fertility, production, post harvest, marketing, and/or breeding and selection conducted to educate commercial clientele and other interested parties.
- 4445 Number of individuals attending educational meetings, field days, demonstrations, or workshops and receiving educational materials.

Outcome Indicators: Turf

- 1699 Number of participants that adopted new production technologies.
- 16 Number of new commercial production operations and golf courses.
- 961 Number of participants that reduced their chemical and fertilizer management inputs.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

-AR Goal 1 - Program Area 5. Horticulture Production and Management (Fruits and Vegetables)

Overview:

A broad selection of fresh market vegetable crops were grown statewide in 2000. These crops included tomatoes, melons, squash, peppers, sweet corn, sweet potatoes, cabbage, greens, spinach and southern peas. The acreage continues to increase as new growers come into the market and as new marketing opportunities appear. The heat and drought of 2000 adversely affected many crops. Growers using irrigation had successful and consistent production.

Multi-disciplinary collaboration between growers, Extension personnel and researchers continued in efforts to solve problems critical to the state's tomato industry.

Fruit crops acreage has the potential to expand over the next few years as the demand for fresh produce continues to climb, particularly relative to direct marketing and local retail sales. Fruit and nut production is a viable alternative for farmers on limited acreage as long as they are willing to provide the high level of management and cultural input required for high-yielding, high-value horticultural crops. The 2000 growing season was good for most fruit growers.

Marketing continues to be a challenge for perishable horticultural crops, especially fruits and vegetables. A more concerted assistance, likely from the state level, with horticultural marketing would significantly improve the potential for horticultural crops in the future of Arkansas.

Increasing growth of retail marketing in both urban and rural areas will create opportunities for fruit and vegetable growers as well as enhance quality of life in local communities. Market development will be critical for fruit and vegetable growers to fully realize opportunities.

Impact:**Output Indicators**

- 4547 Number of educational publications, mass media, and other materials produced as a means to disseminate new technologies to commercial clientele and other interested parties.
- 1376 Number of educational meetings, demonstrations, farm visits or field days held to educate commercial clientele and other interested parties.
- 74 Number of workshops on nutrition, production, and post harvest, marketing, and/or breeding and selection conducted to educate commercial clientele and other interested parties.
- 4604 Number of individuals attending educational meetings, field days, demonstrations, or workshops and receiving educational materials.

Outcome Indicators

- 3893 Number of participants that adopted new production technologies.
- 48 Number of commercial operations.
- 1500 Number of participants that reduced their chemical and fertilizer inputs.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

7) Precision Agriculture -

-AR Goal 4 - Program Area 10. Maintaining Agricultural Sustainability Through Conservation of Natural Resources and Protection of the Environment (Spatial Technologies)

Overview:

Precision agriculture continues to be a buzz word among producer clientele. Engineers spend a lot of time with clientele, one-on-one, to assist with new Global Positioning Systems, Geographic Information Systems and precision application systems. Soil sampling, precision chemical applications and yield monitoring dominate the time spent on precision agriculture systems. Soil sampling, precision chemical applications and yield monitoring dominate the time spent on precision agriculture systems. Training classes have been conducted for the Arkansas State Plant board, county extension staff and researchers monitoring Arkansas water quality and usage. The Arkansas State Plant Board is now using GPS an GIS systems to keep track of chemical usage and complaints.

Impact:

- 213 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele onuses of GIS and GPS applications in production agriculture (i.e. yield monitoring, product evaluation, grid soil

sampling, disease scouting, field boundary mapping, acreage determination, aerial application, etc.).

- 37 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on uses of GIS and GPS in natural resource management (i.e. forest management, watershed characterization, water quality protection, wetland protection, natural resource mapping, wildlife habitat, etc.).
- 397 Number of clientele participating in educational meetings, workshops, and seminars.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

8) Risk Management -

-AR Goal 1 - Program Area 7. Agricultural Marketing, Management and Farm Policy

Overview:

The structure of agriculture is rapidly changing with the passage of the 1996b Federal Agriculture Improvement and Reform Act. While providing pre-determined but declining contract payments, this market-oriented legislation is shifting greater responsibility of managing risk from the federal government to the individual farm family. Many other forces are also increasing the risk faced by producers, including global competition, tax law changes and new technology. Although a broad array of established risk management tools exist, many producers have not taken advantage of them.

Impact:

Output Indicators

- 157 Number of educational meetings held in which management, marketing and/or farm policy information was presented.
- 5318 Number of participants attending educational meetings and receiving educational materials related to management, marketing, and farm policy.
- 528 Number of educational materials produced.

Outcome Indicators

- 1150 Number of producers that implemented changes in management practices as a result of farm management educational efforts.
- 907 Number of producers that implemented changes in management practices as a result of commodity and livestock marketing educational efforts.
- 885 Number of producers that implemented changes in management practices as a result of farm policy educational efforts.

9) **Forest Resource Management -**

-AR Goal 1 - Program Area 4. Forest Management

Overview:

Forests cover roughly half of Arkansas' land area and provide a diversity of benefits including solid wood products, wood fiber, wildlife habitat, recreation opportunities, water conservation, alternative products, and scenic beauty. The majority (58%) of these forests are owned by non-industrial private forest (NIPF) landowners.

Despite the growing importance of non-commodity forest amenities, timber and fiber production remain key factors in our nation's economy. The forest product industry employed some 47,400 Arkansans, contributed approximately \$1.17 billion in payroll, and, through secondary processing, contributed \$4.00 billion value-added dollars to Arkansas' economy in 1995.

Much of the timber harvested to supply the forest product industry comes from NIPF land. In 1997, 68% of the total harvest came from private forest lands. Education regarding forest product marketing, value-added processing, forest management, forest regeneration, best management practices, multiple use forest management, and sustainable forestry is therefore crucial to meet the expanding demand for forest products.

However, forest management does not occur in a vacuum. Public forest management policies, public perception, changing technology, differing viewpoints over management practices, and conflicts about forest land use can constrain landowner options and sometimes deeply divide communities. Education regarding conflict management is also important in contributing to the sustainability of forests and communities dependent upon forests.

Using a discussion and priority setting process, the County Extension Councils in ten Arkansas counties have identified this issue as a major emphasis for their long range education program. These councils are locally based at the county level and include stakeholders from various agencies, industries, farmers, landowners, individuals, county government, and interest groups.

Impact:

Output Indicators

- 64 Number of educational meetings, workshops, demonstrations, field days, tours and short courses conducted to educate clientele about forest product valuation, competitive bidding, marketing, and all dimensions of sustainable forest management including reforestation, BMP's, and wildlife habitat management.
- 94 Number of educational meetings, workshops, demonstrations, field days, tours and short courses conducted to educate clients about timber management including stand improvement, estate planning, developing

- management plans, site preparation, and herbaceous weed and shrub control.
- 10 Number of educational meetings, workshops, demonstrations, field days, tours, and short courses conducted to educate clients about managing forest land enrolled in federal assistance programs.
 - 6 Number of educational meetings, workshops, demonstrations, field days, tours and short courses conducted targeting value-added forest product manufacturing including operating dry kilns, hardwood lumber grading, marketing, product development, and increasing manufacturing efficiency.
 - 52 Number of educational meetings, workshops, short courses, and information designed to facilitate landowner, stake holder, and community participation in public forest issues including conflict resolution, issue identification, collaborative planning, and policies affecting natural resource management.
 - 264 Number of educational materials produced (including electronically produced materials).
 - 3530 Number of clientele attending educational meetings, workshops, demonstrations, field days, tours, and short courses.

Outcome Indicators

- 780 Number of clientele who indicate an increased understanding of forest valuation, competitive marketing, tax treatment from timber income, and other components of forest management.
- 1068 Number of clientele who indicate an increased understanding of BMP's and Stream Side Management zones that can enhance/protect water quality, wildlife habitat, and be managed for forest products.
- 112 Number of clientele who indicate an increased understanding of value-added processing, marketing of value-added products, and improved secondary processing mill efficiency thereby reducing wood waste.
- 303 Number of clientele who had increased economic value of timber sold, wood products produced, or money saved as a result of increased understanding of forest valuation, value-added processing, and sustainable forest management.
- 496 Number of clientele who changed forest management practices resulting from educational programs.
- 80598 Acreage impacted by educational programs as measured by total acres enrolled in AFC forest management plans, the Tree Farm program, landowner associations, and other similar programs.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

Allocated Resources for Goal 1:

Total: 120.15 FTE; Federal (3b&c) - \$1,739,496

Integrated: \$1,520,817

Success Stories:

Impact Number

GOAL 2: A safe and secure food and fiber system

Overview:

The reported incidence of food borne illness from pathogenic bacteria is increasing. According to figures from the Centers for Disease Control, food borne illness occurs in Arkansas at a rate of 50 to 60 cases per 100,000 population. These illnesses may be life threatening or trigger chronic disease. According to the report "Food Safety From Farm to Table," the increase in food borne disease can be partially attributed to the emergence of new food borne pathogens and existing organisms becoming more virulent or finding new ways to evade immune defenses. In addition, changing patterns of consumption, an aging population, more persons with chronic illnesses, and wide variation in food handling and preparation practices are contributing to increased vulnerability of the population to food borne disease. A key to reversing this trend of increased disease is education for consumers and for food handlers throughout the food production and marketing system.

Programming in food safety education focused on at-risk individuals such as pregnant women, parents of infants, older adults, youth and adult limited-resource participants, home food preservers/preparers and commercial food handlers. Over 40 individuals desiring to start a food business were assisted with information on food safety assessment and development of food labels.

Key Themes:

1) Food Safety -

-AR Goal 2 - Program Area 8. Safe Food - From Farm to Table

Overview:

Impact: Output Indicators (Consumers)

- 5746 Number of consumers participating in educational short courses or meetings related to sanitation and safety in food handling.
- 30354 Number of people reached through food safety awareness programs, demonstrations, or displays.
- 407 Number of media articles produced on food safety issues.

Outcome Indicators (Consumers)

- 5779 Number of consumers who report improved sanitation in food handling.

Output Indicators (Producers)

- 192 Number of participants in educational programs leading to certification for food handlers (i.e., ServSafe programs and Better Process Control Schools).
- 114 Number of non-certified programs for food handlers.
- 4 Number of food safety educational programs for growers, producers, distributors, or retailers.
- 796 Number of participants attending non-certification programs for food handlers.
- 135 Number of growers, producers, distributors or retailers attending food safety educational programs.

Outcome Indicators (Producers)

- 133 Number of food handlers certified.
- 130 Number of food service managers who report improved food handling practices within a commercial establishment.
- 132 Number of growers, producers, distributors, or retailers implementing one or more practices to minimize food safety hazards.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

Allocated Resources for Goal 2:

Total: 9.22 FTE; Federal (3b&C) - \$133,462

Integrated: \$186,131

Success Stories:

Impact Number:

GOAL 3: A healthy, well-nourished population

Overview:

The typical Arkansas diet has too few fruits, vegetables and whole-grains and too much fat. The poor diet in conjunction with insufficient physical activity, contributes to the development of serious health problems. These problems include heart disease, stroke, cancer, diabetes, osteoporosis, and obesity.

In 1996, heart disease was the leading cause of death in Arkansas resulting in 8,310 deaths. Cancer, the second leading cause of death, claimed 5,960 lives. Another 2,294 deaths occurred as the result of stroke, the third leading cause of death in Arkansas.

In the past five years, the number of obese adults has increased by 10 percent and the number of obese children by 20 percent.

Using a discussion and priority setting process, the County Extension Councils in 80 percent of Arkansas counties have identified managing diet, health and wellness as a major emphasis for their long range educational programs. The FY4H program focuses on improving health and well being by providing education in the areas of physical activity, women's health issues and nutrition education.

Extension health education programs had a positive impact on over 115,000 Arkansans health risk factors, health screenings, mammograms, and physical exercise programs. The nutrition education effort reached more than half of Arkansas' population (1.6 million people) about the new dietary guidelines for businesses. Tens of thousands of Arkansans increased their intake of fruits and vegetables, whole grains, and calcium rich foods while reducing their dietary fat intake.

Key Themes:**1) Human Health -**

-AR Goal 3 - Program Area 9. Improving Health (Output indicators: Physical Activity)

Overview:

According to the Arkansas Department of health, a total of 27,452 deaths occurred in Arkansas during 1998. As in previous years, two-thirds of these deaths can be attributed to lifestyle related chronic diseases.

<u>Rank</u>	<u>Health Condition</u>	<u>Percent of Total Deaths</u>
1	Diseases of Heart	30.7
2	Cancers	21.7
3	Cerebrovascular Diseases	8.5
4	Chronic Obstructive Pulmonary Diseases	4.5
7	Diabetes	2.3

Chronic disease takes a substantial toll on the U.S. economy through medical care costs and lost productivity. In 1995, the costs associated with the diet-related leading causes of death - heart disease, cancer, stroke and diabetes - were approximately \$250 billion. In Arkansas, the costs for treating and caring for people with these diseases and lost productivity resulting from illnesses and premature death, is estimated at \$3.9 billion yearly. Lifestyle factors, such as high-fat diets, lack of physical activity and smoking, increase the risk of these chronic diseases.

Impact:

Output Indicators

- 780 Number of educational programs offered that relate to physical activity.
- 10267 Number of participants attending educational program related to physical activity.
- 76594 Numbers of people reached through awareness programs, exhibits and media outlets based on topics related to physical activity.
- 748 Number of educational resources prepared related to physical activity.

Outcome Indicators

- 4870 Number of people who plan to increase physical activity.
- 2740 Number of people who increase physical activity.
- 82 Number of people who participate in the Arkansas Traveler walking program.
- 125662 Number of miles walked by Extension program participants.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

2) **Human Nutrition -**

-AR Goal 3 - Program Area 9. Improving Health (Output indicators: Nutrition)

Overview:

Impact:

Output Indicators

- 8536 Number of educational programs offered on topics related to one or more of the Dietary Guidelines for Americans.
- 74702 Number of participants attending educational programs on topics related to one or more of the Dietary Guidelines for Americans.
- 1640079 Number of people reached through awareness programs, exhibits and media outlets based on topics related to one or more of the Dietary Guidelines for Americans.
- 2821 Number of educational resources prepared related to nutrition and dietary

guidelines.

Outcome Indicators

- 31281 Number of people who plan to increase consumption of fruits and vegetables.
- 18888 Number of people to increase consumption of fruits and vegetables.
- 24999 Number of people who plan to increase consumption of whole-grain foods.
- 11431 Number of people who increase consumption of whole-grain foods.
- 23413 Number of people who plan to increase consumption of calcium-rich foods.
- 12656 Number of people who increase consumption of calcium-rich foods.
- 24588 Number of people who plan to decrease consumption of fat and/or saturated fat.
- 13407 Number of people who decrease consumption of fat and/or saturated fat.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

Allocated Resources for Goal 3:

Total: 25.78 FTE; Federal (3b&c) - \$373,173

Integrated: \$39,881

Success Stories:

Impact Number:

GOAL 4: An agricultural system which protects natural resources and the environment

Overview:

Arkansas agriculture faces many issues related to natural resource conservation and environmental protection that threaten its sustainability for many producers. The most significant issues include:

Groundwater Conservation:

- Nearly 4 million acres of crop land in Arkansas is irrigated with groundwater
- State has declared 11 counties as critical relative to groundwater depletion

Surface Water Quality:

- Agriculture is a potential cause of water use in impairments in Arkansas
- Urban non-point source pollution is an increasingly important issue

Soil Quality:

- Soil erosion threatens the long-term productivity for row crop production
- Soil phosphorus is approaching environmentally sensitive levels where long-term applications of animal waste have been made to pastureland

Spatial Technology:

New technology such as global positioning systems (GPS) and geographic information systems (GIS) are powerful new tools in production agriculture and natural resource management. This technology allows more detailed management of agricultural inputs (fertilizer, pesticides, animal waste, etc.) With the potential benefits to production economics and to the environment by lessening adverse impacts.

Wildlife:

- The loss of wildlife habitat has slowed but continues to be a major issue.
- Hunters and anglers contribute over \$600 million to Arkansas' economy.

Animal Waste Management:

Extension programs educated beef, swine and poultry producers about how to reduce the adverse impacts of waste. Nutrient management plans, liquid waste certification training and soil and manure certification resulted in improved water and soil quality and accreditation in regulatory violations monitored by the Arkansas Department of Environmental Quality.

Integrated Pest Management

Arkansas' IPM Program continues to be successful in cotton, rice, and soybeans. New programs in pastures, pecans, and fruit trees has been expended. Over 2000 producers that benefitted directly from Extension education efforts that protected crops or reduced pesticide application.

Imported Fire Ant Program

Fire ants are found in 40 of Arkansas' 75 counties. Our Red Imported Fire Ant Home Page at www.uaex.edu/natural/fireant/firehome.htm receives over 1000 ants per month for information. Fire ant control demonstrations were conducted in over half of the infested counties.

Natural Resources Management

Over 900 farmers changed irrigation practices this year to help conserve water use. Over 1400 producers adopted best management practices to improve surface water quality and over 9000 homeowners adopted better lawn care practices to reduce fertilizer and pesticide use errors.

Pesticide Application Training Program

Arkansas PAT Program certified or re-certified over 9000 applicators and 45% of those changed pesticide use practices as a result.

Solid Waste, Recycling and Composting

Emphasis continues to be placed on efforts to increase recycling and composting programs in

Arkansas. Over 31,000 clients made positive changes to these practices. One of our most successful efforts was recycling pesticide containers and plastic irrigation pipe. Over 2 million pounds were recycled in fiscal year 2000 as a result of Extension efforts.

Water and Soil Quality

These are some of our strongest programs. Over 700 water samples were taken to protect wellheads in the state. Three USDA projects have been phased out with major successes. Other small projects are taking their place as a result including use of spatial technology to determine problem areas. Thousands of producers continue to use our soil testing programs to conserve fertilizer and save production costs.

Wildlife Management

Acres For Wildlife, Wildlife habitat Improvement Workshop and use of GPS in Wildlife Management impacted over 5000 clients to modify habitat to protect or conserve wildlife in the natural state.

Key Themes:

- **Agricultural Waste Management -**
-AR Goal 4 - Program Area 11. Animal Waste Management

Overview:

Arkansas has 55,000 dairy cattle on 600 farms and 850,000 head of swine places at one time on 450 farms (annual production is almost 2 million head). Annual broiler production is 1.2 billion birds on 5000 farms and 30 million turkeys are produced on 800 farms. Another 27 million chickens are in place at any time on about 1000 farms. Annual Arkansas farm gate income from livestock and poultry is \$2.9 billion before support services, industry, or further processing are added.

Confined livestock and poultry operations have resulted in the concentration of manure derived nutrients in certain areas of the state. Phosphorus (P), the primary nutrient of concern, has accumulated to higher than desired levels in soils on many livestock and poultry farms that have been in operation over ten years. This has resulted in increased P runoff and accumulation of P to undesirable levels in some surface waters of the state. However, it is also known that livestock and poultry manures are valuable soil amendments that when properly applied can increase soil tilth and fertility with minimal negative effects to the environment. Much of the beef cattle industry in Arkansas is dependent on forage produced by nutrients from swine and poultry.

All Arkansas producers with confined animal feeding operations that utilize liquid manure handling systems (regardless of size) require a permit for manure handling. Permit elements include nutrient management, specified application sites, maximum application rates, annual

training for owner/operators and annual reporting requirements.

All Arkansas poultry producers are encouraged by state and federal agencies and poultry integrators to voluntarily comply with appropriate BMP's, to develop a nutrient management plan for their farms, and to attend environmental education programs.

Using a discussion and priority setting process, the County Extension Councils in one-third of Arkansas counties have identified this issue as a major emphasis for their long range education program.

Impact:

Output Indicators

- 3941 Number of producers, industry, or agency personnel attending educational programs.
- 36 Number of educational meetings held with swine and poultry industry representatives, State and Federal agency personnel, and U of A research faculty to identify and discuss animal waste management issues.
- 1031 Number of soil test databases developed from selected livestock and poultry farms, and all animal manure samples processed through the U of A testing programs.
- 20 Number of annual certification training meetings conducted for all owner/operators of confined animal operations with liquid manure handling systems.
- 25 Number of educational meetings, field days, and/or demonstrations held to educate clientele on liquid and dry animal waste management.
- 3093 Number of educational materials produced.

Outcome Indicators

- 10 Number of animal waste violations cited by Arkansas Department of Environmental Quality.
- 1356 Number of growers with confined livestock and poultry operations that voluntarily participate in preparing nutrient management plans for thier farm (preparation of plans by others).

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Integrated Pest Management -**

-AR Goal 4 - Program Area 12. Cotton Pest Management/Integrated Pest Management

Overview:

Integrated Pest Management (IPM) is the long-term and focused application of biological, cultural, mechanical, and chemical pest control methods based on increased monitoring and knowledge of the crop production ecosystem.

The USDA IPM Initiative goal is to insure that 75% or more U.S. farms utilize IPM practices for pest control by the year 2000 - currently it is estimated that about 50% of farms use IPM in the United States.

Using a discussion and priority setting process, the County Extension Councils in two-thirds of Arkansas' counties have identified this issue as a major emphasis for their long range education program.

Impact:**Output Indicators: Cotton Pest Management**

- 196 Number of educational meetings, demonstrations, and/or field days held to educate clientele on cotton pest management.
- 67 Number of scouting programs, pheromone trapping programs, resistance monitoring, and related biological surveys conducted to facilitate IPM practices in cotton.
- 980 Number of conventional and electronic publications produced that promote the adoption of IPM principles in cotton pest management.
- 3964 Number of clientele attending educational programs or receiving materials.
- 1353 Number of clientele materials written and/or distributed.

Outcome Indicators: Cotton Pest Management

- 873 Number of clientele involved in scouting and survey programs in cotton.
- 1271 Number of clientele utilizing other IPM practices in cotton.

Output Indicators: Integrated Pest Management

- 180 Number of educational meetings, demonstrations and/or field days held to educate clientele on integrated pest management.
- 78 Number of scouting programs, pheromone trapping programs, resistance monitoring, and related biological surveys conducted to facilitate IPM practices.
- 947 Number of conventional and electronic publications produced that promote the adoption of IPM principles.
- 4526 Number of clientele attending educational programs or receiving materials.
- 962 Number of clientele materials written and/or distributed.

Outcome Indicators: Integrated Pest Management

- 1016 Number of clientele involved in scouting and survey programs.
- 1986 Number of clientele utilizing other IPM practices.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

-AR Goal 5 - Program Area 14. Imported Fire Ant Education Program

Overview:

Imported fire ants infest over 275 million acres in thirteen states. Within Arkansas 27 counties are infested to the point of quarantine with 16 other counties having isolated populations.

- Fire ants can pose significant health threats to allergic individuals.
- Fire ants can have a negative economic impact on real estate property values, commerce, agricultural and livestock production and wildlife.
- Fire ants reduce quality of life through negative impacts such as curtailing outdoor activities and damaging electrical equipment.
- Uninformed Arkansans often use ineffective and environmentally detrimental management techniques to attempt fire ant control (example: use of gasoline which can potentially contaminate waters)

Impact:

Output Indicators

- 197 Number of educational publications (including some multi-state) and materials produced including videos, CD Roms, slide sets necessary to conduct the statewide fire ant educational program.
- 161 Number of educational meetings and seminars held to inform homeowners, grower groups, community leaders and elected officials, and specialized groups about imported fire ant biology, impact and management.
- 41 Number of fire ant educational programs in public schools.
- 92 Number of fire ant abatement demonstrations in residential, agricultural, public and industrial areas.
- 61 Number of TV, radio and internet programs to increase fire ant awareness.
- 6545 Number of people attending educational meetings, programs and seminars.

Outcome Indicators

- 20 Number of new and continued fire ant abatement programs in Arkansas.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Natural Resources Management -**

-AR Goal 4 - Program Area 10. Maintaining Agricultural Sustainability Through Conservation of Natural Resources and Protection of the Environment (groundwater consumption)

Overview:

Arkansas agriculture faces several natural resource and environmental issues in the twenty-first century. The most significant issues include critical groundwater decline, soil erosion in row crop production areas of eastern Arkansas and water quality issues associated with confined livestock production in western and northern Arkansas.

Addressing natural resource management concerns from an organizational perspective is complex because it involves many different private, state and federal agencies, each with a different mission and involvement level. Extension has been successful in developing multi-agency and industry cooperation to help Arkansas agriculture address these issues. Some examples of cooperation include Extension's involvement in the Arkansas Soil and Water Commission's (ASWCC) Nonpoint Source Support Group, the Natural Resource Conservation Service's (NRCS) State Technical Committee, the Arkansas Department of Environmental Quality's (ADEQ) Watershed Advisory Group, the Arkansas Association of Conservation District's (AACD) Executive Board and the Arkansas Conservation Partnership (ACP) workgroup. This cooperation continues to be a role model for surrounding states.

Impact:

Output Indicators

- 452 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on groundwater conservation, proper irrigation methods for improving water use efficiency, shifting irrigation water use to surface water via surface reservoirs and/or river diversion by irrigation districts.
- 236 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on water conservation methods for domestic, municipal, and industrial water use and on reducing urban non-point source pollution through proper lawn care.
- 269 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on best management practices to lessen the agricultural impacts on surface water quality and on watershed issues.
- 3767 Number of educational materials written and/or distributed (i.e. fact sheets, news releases, conference proceedings, newsletters, handouts, etc.) On groundwater conservation and proper irrigation methods.
- 4504 Number of education materials written and/or distributed (i.e. fact sheets, new releases, conference proceedings, newsletters, handouts, etc.) On best management practices for reducing agricultural and urban non-point source pollution as well as watershed issues.

9484 Number of clientele participating in educational meetings, workshops, and seminars.

Outcome Indicators Groundwater Conservation and Surface Water Quality

- 975 Number of participants who adopt proper irrigation management practices such as border irrigation, irrigation scheduling, multiple inlet for rice, etc. and other groundwater conservation methods.
- 309 Number of participants who adopt water conservation practices for domestic, municipal, and industrial water use.
- 1426 Number of clientele who adopt agricultural best management practices to reduce impact on surface water quality.
- 9187 Number of homeowners who adopt proper lawn care practices such as soil testing, following label directions or Extension pesticide recommendations.
- 108 Number of clientele who participate in Farm*A*Syst and Home*A*Syst.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Pesticide Application -**

-AR Goal 4 - Program Area 13. Pesticide Applicator Training

Overview:

By Federal and State laws, applicators of restricted use pesticides must be certified or work under the direct supervision of a certified applicator. Applicators must be periodically re-certified by attending educational programs on pesticide safety, integrated pest management, endangered species protection, groundwater protection, the Worker Protection Standard, and other appropriate topics.

Federal requirements stipulate that multi-state educational activities should be implemented for various Extension programs. Arkansas, Louisiana, and Mississippi have chosen Pesticide Applicator Training as multi-state cooperative effort. In order to produce food and fiber and protect the environment and human health, safe use of pesticides is essential.

Using a discussion and priority setting process, the County Extension Councils in nine Arkansas counties have identified this issue as a major emphasis for their long range education program.

Impact:

Output Indicators

- 458 Number of educational publications, slide sets, study guides and other materials produced as needed to conduct the program.

- 243 Number of educational meetings held to certify or re-certify commercial and private applicators.
- 67 Number of educational meetings held to educate other interested parties.
- 620 Number of applicator surveys conducted to determine changes in pesticide application practices.
- 2630 Number of individuals (not including private and commercial applicators) attending pesticide educational programs.

- 85 Number of private and commercial/non-commercial applicators attending the two multi-state re-certification workshops for the fumigation and turf and ornamental categories.

Outcome Indicators

- 441 Number of commercial applicators certified and re-certified.
- 9488 Number of private applicators certified and re-certified.
- 4035 Number of individuals changing pesticide application practices as a result of the educational program.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Recycling -**

-AR Goal 5 - Program Area 15. Solid Waste Management

Overview:

Arkansas generates 2.5 million tons of solid waste annually. The state has a limited number of disposal sites or landfills; (24 Class 1 landfills to serve 75 counties). Some areas of the state do not have comprehensive solid waste management collection programs. Yard trimmings are banned from landfills. Recycling goals have been set by state legislation. Improper disposal of solid waste is a health and safety problem and a detriment to economic development.

Using a discussion and priority setting process, the County Extension Councils in one-fourth of Arkansas counties have identified this issue as a major emphasis for their long range education program.

Impact:

Output Indicators

- 85 Number of educational meetings, workshops, demonstrations (sites or exhibits), news articles, radio programs and tours held to educate clientele about the benefits and how-tos of composting (backyard, on-farm and municipal).

- 36 Number of educational meetings, workshops, news articles, radio and TV programs, demonstrations, and tours held to educate clientele about appropriate solid waste management practices (landfilling, recycling, source reduction, reuse, household chemical disposal, pay-as-you-throw programs, and others).
- 27 Number of educational meetings, workshops, news articles, radio and TV programs, demonstrations, and tours held to educate agriculture clientele about disposal and recycling and composting opportunities for on-farm generated waste (plastic irrigation pipe, pesticide containers, used motor oil).
- 28 Number of educational meetings, workshops, news articles, radio and TV programs, and tours held to educate clientele about the dangers of improper solid waste disposal-illegal dumping, open burning and littering.
- 6577 Number of clientele attending education programs and receiving educational publications and other materials written and/or distributed on solid waste management.

Outcome Indicators

- 31886 Number of clientele who reported changing their solid waste management practices (recycling, composting, subscribing to solid waste collection services, source reduction activities, household chemical disposal events, ceasing open burning).
- 421 Number of agriculture clientele adopting new disposal practices.
- 2050500 Number of pounds of pesticide containers and plastic irrigation pipe collected for recycling.
- 1 Number of illegal dumps identified and closed.
- 58 Number of cleanup events and participation.
- 85 Number of groups participating in adopting streets, parks, highways, streams and similar cleanup programs.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Soil Quality -**

-AR Goal 4 - Program Area 10. Maintaining Agricultural Sustainability Through Conservation of Natural Resources and Protection of the Environment (Soil Quality)

Overview:

Impact:**Output Indicators**

- 453 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on conservation tillage methods and best management practices for soil erosion.
- 1679 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on proper soil management practices such as soil testing, nutrient management (nitrogen and phosphorus), residue management, and land leveling.
- 516 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on soils adversely affected by salinity and/or alkalinity, compaction, and poor physical condition.
- 4334 Number of clientele participating in educational meetings, workshops and seminars.

Outcome Indicators

- 2260 Number of clientele who adopt conservation tillage and other soil erosion best management practices.
- 9362 Number of clientele who adopt proper soil management practices including soil testing, land leveling, and residue management.
- 2230 Number of clientele who adopt practices to deal with soils affected by salinity and/or alkalinity including soil testing, well testing, soil amendments, water management, subsoiling, etc.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Water Quality -**

-AR Goal 4 - Program Area 10. Maintaining Agricultural Sustainability Through Conservation of Natural Resources and Protection of the Environment (Water Quality)

Overview:

Non-point source is emphasized at both the state and national levels because of the potential impact of agricultural production on surface and groundwater quality. Programs dealing with pesticide management, nutrient management and animal waste management are carried out in several areas - improved program support, wellhead protection, joint USDA watershed projects and in youth activities.

Impact:**Output Indicators**

- 452 Number of educational meetings, demonstrations, farm visits, and/or field

days held to educate clientele on groundwater conservation, proper irrigation methods for improving water use efficiency, shifting irrigation water use to surface water via surface reservoirs and/or river diversion by irrigation districts.

- 236 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on water conservation methods for domestic, municipal, and industrial water use and on reducing urban non-point source pollution through proper lawn care.
- 269 Number of educational meetings, demonstrations, farm visits, and/or field days held to educate clientele on best management practices to lessen the agricultural impacts on surface water quality and on watershed issues.
- 3767 Number of educational materials written and/or distributed (i.e. fact sheets, news releases, conference proceedings, newsletters, handouts, etc.) On groundwater conservation and proper irrigation methods.
- 4504 Number of educational materials written and/or distributed (i.e. fact sheets, new releases, conference proceedings, newsletters, handouts, etc.) On best management practices for reducing agricultural and urban non-point source pollution as well as watershed issues.
- 9484 Number of clientele participating in educational meetings, workshops and seminars.

Outcome Indicators

- 975 Number of participants who adopt proper irrigation management practices such as border irrigation.
- 309 Number of participants who adopt water conservation practices for domestic, municipal, and industrial water use.
- 1426 Number of clientele who adopt agricultural best management practices to reduce impact on surface water quality.
- 9187 Number of homeowners who adopt proper lawn care practices such as soil testing, following label directions or Extension pesticide recommendations.
- 108 Number of clientele who participate in Farm *A*Syst and Home*A*Syst.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Wildlife Management -**

-AR Goal 4 - Program Area 10. Maintaining Agricultural Sustainability Through Conservation of Natural Resources and Protection of the Environment (Wildlife)

Overview:

Arkansas is home to numerous wildlife species that thrive in rural countryside as well as downtown Little Rock. A diversity of wildlife habitat is present in Arkansas - pine and hardwood forests, rivers and streams, lakes and reservoirs, wetlands, and delta river bottoms. Many Arkansans enjoy the outdoors and watching wildlife. Hunting and fishing rank high as recreational pastimes.

This combination of abundant wildlife and public interest creates a demand for information about wildlife habitat enhancement. Because most land in Arkansas is privately owned, educating private landowners benefits wildlife populations. Wildlife enterprises are often overlooked as an alternative for agricultural producers.

Conversely, wildlife abundance has contributed to landowner problems - destruction of gardens and landscape plantings, increased incidence of deer-related vehicle accidents, lowered agricultural crop production and bird depredation at aquaculture facilities to name a few.

The Wildlife Program of the University of Arkansas Cooperative Extension Service addresses both audiences, those private landowners who desire more wildlife and those experiencing wildlife damage.

Impact:

Output Indicators

- 250 Number of education meetings, workshops, demonstrations, and/or field days held to educate clientele on enhancing wildlife habitat, prevention and control of wildlife damage and wildlife income.
- 121 Number of educational presentations in schools and through 4-H clubs to teach youth wildlife identification, management and habitat practices.
- 1692 Number of educational materials written and/or distributed (i.e. fact sheets, new releases, conference proceedings, newsletters, handouts, etc.)
- 2694 Number of clientele participating in educational meetings, workshops and seminars.

Outcome Indicators

- 5598 Number of clientele who adopt wildlife management practices that enhance wildlife habitat or prevent and control wildlife damage to property.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

Allocated Resources for Goal 4:

Total: 43.43 FTE; Federal (3b&c) - \$628,661
 Integrated: \$560,052

Success Stories:
 Impact Number

GOAL 5: Enhanced economic opportunity and quality of life for Americans

Overview:

Child Care

In 2000, The Best Care Program, a curriculum designed to train child care providers, was taught in 42 locations in Arkansas. Over 2000 attended these sessions during a total of 330 hours of training.

Community Development

The Vision 2010 Program targeted 7 communities to develop a strategic plan for their future. Much of this planning supports and promotes changes in these counties that encourage new tourism and economic development. Ambassador Training Workshops in 2 communities provided community leaders with skills to recruit retirees to their towns. Economic development analysis assisted 15 communities to understand how the global economic environment is changing the local economy. Public Policy Education fact sheets were produced to educate the public about constitutional amendments on the ballot in November 2000. These were distributed to all counties. Radio and TV spots enhanced this program. Home based business consultations encouraged 26 new enterprises to start. Twelve new parks and recreation facilities were constructed as a result of Extension design and planning programs.

Strengthening Families

Extension's goal is to help clientele lead more effective lives and avoid violence by improving their skills to resolve conflicts. Over 5000 youth and 1000 parents adopted one or more non violent practices in dealing with children .

Managing Resources

Hundreds of families served by county family increased savings and decreased debt. These savings (over \$800,000 in 2000) were the result of financial plans developed through Extension education and consultation. In limited resource families, the savings were over \$44,000 in over 150 families.

Leadership Training and Development

Extension has long been recognized for encouraging volunteerism and leadership development in rural communities: Over 5000 volunteers contributed over 200,000 hours to Extension program-

FY 2000 and leadership development efforts in adult programs, at the county and state levels, encouraged over 1500 to enter new leadership promotions. These leaders also implemented over 1100 new community projects to serve people.

Parenting

Being an effective parent is one of the most difficult jobs anyone can have. Single parents have even greater responsibilities. Extension programs in parenting resulted in over 800 parents who have adopted a recommended parenting practice. Over 400 parents (under 28 years of age) also have adopted one or more of these practices.

Youth Development

Our primary program for youth development is 4-H. Over 16,000 youth completed one to 2 educational projects in a local 4-H program. Almost 5000 provided at least one hour of community advice (over 66,000 hours total). Over 11,000 youth developed leadership skills and 29,000 improved life skills competencies.

Key Themes:

- **Child Care/Dependent Care -**

-AR Goal 5 - Program Area 18. Strengthening Families (Output and Outcome Indicators - Child Care)

Overview:

When families are strong, stable, and loving, children have a sound basis for becoming competent, caring and productive adults. When families are not able to give children the attention and affection they need or when families cannot provide for children's material needs, the children are far less likely to achieve their full potential.

- Each year approximately 36,000 babies are born to Arkansas families. About 20% of these infants are born to adolescent mothers. These young mothers frequently have no education and few skills for taking on their parenting responsibilities.
- 71,000 Arkansas families with children live at or below the poverty level. Lack of resources severely limits families ability to adequately care for their children.
- High quality child care is critical for optimal cognitive and social development of Arkansas children. Access to affordable, appropriate an high quality child care is difficult for many Arkansas parents. In Arkansas, 69% of the children under age 6 live in families with working parents and 32% of Arkansas children under age 13 live in working poor families.

Impact:**Output Indicators**

- 216 Total number of child care provider training sessions provided.
- 711 Total number of hours of child care provider training provided.
- 3526 Number of child care providers who completed The Best Care program.
- 1052 Number of child care providers who participated in, but did not complete, The Best Care program.
- 806 Number of child care providers attending child care training programs other than The Best Care program.
- 83 Number of child care provider training educational resources developed.

Outcome Indicators

- 3614 Number of providers who report that they plan to adopt one or more recommended child care practice.
- 2035 Number of providers who report that they have adopted one or more recommended child care practice.
- 2425 Number of providers who report greater satisfaction in caring for children.
- 2535 Number of providers who report that they believe they are doing a better job of providing appropriate, high-quality care for children.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Community Development -**

-AR Goal 5 - Program Area 16. Economic and Community Development and Public Policy Education

Overview:

Many rural Arkansas communities are experiencing a decline in their economic base and population at the same time that urban centers are experiencing growth. Large numbers of people not in the labor force, high unemployment, and low wage jobs create a need to enhance the local economic base of these communities.

- One-third of Arkansas' 75 counties lost population between 1990 and 1997.
- Eleven percent of Arkansas' counties lost jobs between 1990 and 1996.
- The number of cooperatives in the state is declining.
- The number of government contracts and funds coming to Arkansas is small.

There is a citizen's movement in Arkansas to abolish all property taxes and restrict state and local governments in raising additional revenue to replace the lost property tax revenue.

Impact:**Output Indicators**

- 275 Number of workshops, meetings, and conferences held.
- 408 Number of educational publications and newsletters and other materials produced.
- 397 Number of non-formal educational meetings with clients.
- 33 Number of community studies, survey, and assessments.

Outcome Indicators

- 284 Number of community projects undertaken.
- 26 Number of home based businesses started.
- 40 Number who report increase in home based business profits.
- 10 Number of small businesses receiving government contracts.
- 12 Number of new parks and recreation facilities constructed.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Conflict Management -**

-AR Goal 5 - Program Area 18. Strengthening Families (Output Indicators - Violence Prevention)

Overview:

The use of violence as a way to resolve conflict has become a norm accepted in our society. Every week 2 Arkansas youth aged 15-17 die from violence, 13 are arrested for violent crimes and 81 are arrested for alcohol/drug related crimes. But, the concept that violence is a learned behavior provides a strong incentive to prevent the development of violent behavior at an early age through life skills and prevention education programs.

Impact:**Output Indicators**

- 626 Number of pro-social/violence prevention educational programs offered to children and youth.
- 151 Number of pro-social/violence prevention educational program offered to adults.
- 15713 Number of children and youth who participated in a pro-social/violence prevention program.
- 2863 Number of adults who participated in pro-social prevention program.
- 61 Number of pro-social/violence prevention educational resources developed.

Outcome Indicators

- 9907 Number of youth who report that they plan to adopt one or more

- recommended pro-social/violence prevention practices.
- 5605 Number of youth who report they have adopted one or more pro-social/violence prevention practices.
- 2904 Number of teachers, child care providers, parents, or other adults who report improved pro-social behaviors in youth who have participated in CES educational programs.
- 1057 Number of adults who report they plan to adopt one or more pro-social or non-violent recommended practices in dealing with children and youth.*
- 606 Number of adults who report they have adopted one or more pro-social or non-violent practices in dealing with children and youth.*
 (*Recommended pro-social/violence prevention/non-violent practices include decision-making, anger management, stress management, conflict resolution, exhibiting helping behaviors, and esteem building.)

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Family Resource Management -**

-AR Goal 5 - Program Area 19. Managing Resources

Overview:

the combination of low national savings rate and high debt levels present serious economic problems for many families. Bankruptcy filings in Arkansas continue to increase. Families living on the “financial edge” - with no savings and a high debt load - find it difficult, if not impossible, to weather a financial crisis.

- Data from the 1996-98 Current Population Survey found that 75,000 (more than 20%) of the state’s 372,000 families with children live with incomes below the federal poverty line.
- The number of bankruptcy cases in Arkansas has increased each year since 1995. The total number of bankruptcy cases increased by 37% in 1995, 41% in 1996; 19% in 1997 and 9% in 1998.
- According to Teenage Research Unlimited, U.S. teens spent an estimated \$141 billion in 1998. Teen spending increased 16% between 1997 and 1998. While teens have substantial access to money, studies show that their knowledge of basic financial concepts is lacking. High School seniors responding to a 31-question multiple choice exam, designed to test basic financial survival skills, scored, on average, 57.3%. Only 10.2% of the students scored a “C” or better.

Impact:**Output Indicators**

- 736 Number of educational meetings related to teaching resource management skills.
- 9258 Number of participants attending educational meetings related to resource management skills.
- 209 Number of educational publications and other materials developed to educate people about resource management.
- 4527 Number of hours spent planning, conducting, marketing and evaluating educational programs related to resource management.

Outcome Indicators

- 707 Number of adults who developed a written spending plan.
- 498 Number of youth who developed a written spending plan.
- 1291 Number of adults who have established a financial goal.
- 550 Number of youth who have established a financial goal.
- 516 Number of adults who reported an increase in savings.
- 290 Number of youth who reported an increase in savings.
- 301400 Dollar amount of increased savings reported by adults.
- 7430 Dollar amount of increased savings reported by youth.
- 358 Number who reported a decrease in debt.
- 549998 Dollar amount of decreased debt reported.
- 697 Number who developed a plan to meet future financial needs.
- 699 Number who reported having a system to maintain financial records.
- 887 Number who reported increased satisfaction with their quality of life.
- 1270 Number who feel more confident about managing available resources.
- 608 Number who reported increased ability to pay expenses from month-to-month.
- 732 Number reporting increased satisfaction with their financial well-being.
- 463 Number of adults who reached a financial goal.
- 83 Number of youth who reached a financial goal.
- 2271 Number of youth who increased knowledge of basic money management concepts.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

-AR Goal 5 - Program Area 21. Managing Resources in Limited Resource Families (Louisiana, Mississippi, and Arkansas)

Overview:

The combination of low national savings rate and high debt levels present serious economic

problems for many families. Bankruptcy filings in Arkansas continue to increase. Families living on the “financial edge” - with no savings and a high debt load - find it difficult, if not impossible, to weather a financial crisis. Families with limited resources, especially those who have received public assistance and are trying to move toward self-sufficiency, are especially vulnerable.

- Data from the 1996-98 Current Population Survey found that 75,000 (more than 20%) of the state’s 372,000 families with children live with incomes below the federal poverty line.
- The majority of poor households (55%), compared to 13% of non-poor households, live with at least one of the following deprivations in any one year: Eviction; utility disconnects; housing with upkeep problems; not enough food in the past 4 ;months; crowded housing; no refrigerator, stove or telephone.

Using a discussion and priority setting process, the County Extension Councils in two-thirds of Arkansas counties have identified managing family resources as a major emphasis for their long range educational programs.

Impact:

Output Indicators

- 833 Number of educational sessions conducted.
- 4092 Number of limited resource parents reached.
- 179 Number of educational publications and other materials developed to educate limited resource audiences about resource management.
- 7584 Number of hours spent planning, conducting, marketing and evaluating educational programs related to resource management in limited resource families.
- 5084 Number of contact hours spent reaching limited resource clientele.

Outcome Indicators

- 148 Number who reported an increase in savings.
- 17546 Dollar amount of increased savings reported.
- 57 Number who reported a decrease in debt.
- 27134 Dollar amount of decreased debt reported.
- 941 Number who reported increased satisfaction with their quality of life.
- 561 Number who feel more confident about managing available resources.
- 935 Number who reported increased ability to pay expenses from month-to-month.
- 478 Number reporting increased satisfaction with their financial well-being.
- 348 Number of households who reached a financial goal.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Leadership Training and Development -**

-AR Goal 5 - Program Area 17. Leadership and Volunteer Development (Youth and Adult)

Overview:

The need for communities to have effective leaders and active volunteers has never been greater than today. Communities are facing new challenges, and yet the increase in two-career families has reduced the amount of time that most families have for community activities. More and more efforts are being exercised to form coalitions, to collaborate, and to network with other agencies and organizations. Individuals interested in developing their own skills and contributing to the development of their communities are vital resources to organizations. As a result of these changes, we are facing greater competition for individuals with leadership skills and time for volunteering. Leadership development training is one of the most effective ways that communities can develop a cadre of individuals who can effectively address the critical issues facing them. Furthermore, organizations that utilize volunteers ;most effectively, do so as a coordinated volunteer program and training is a valuable component to the success of these efforts.

Using a discussion and priority setting process, the County Extension Councils in 90 percent of Arkansas counties have identified this issue as a major emphasis for their long range education program.

Impact:

Output Indicators Youth and Adult

- 1261 Number of training programs conducted for leaders and volunteers.
- 13091 Number of individuals participating in training.
- 2109 Number of new participants in leadership and volunteer programs.
- 1792 Number of 4-H leaders trained.
- 7462 Number of EHC Volunteers trained.
- 616 Number of Master Volunteers trained.

Outcome Indicators Youth and Adult

- 5294 Number of volunteers conducting programs as a result of training.
- 216555 Number of volunteer hours contributed to programs.
- 6345 Number of individuals trained reporting adoption of skills and/or utilizing knowledge gained.
- 1526 Number of individuals in new leadership positions.
- 1134 Number of community projects implemented.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Parenting -**

-AR Goal 5 - Program Area 18. Strengthening Families (Output and Outcome Indicators - Parenting)

Overview:

In the new century, Arkansas families are confronted with both the lingering challenges of the past and emerging challenges facing the changing American family. Arkansans face a multitude of problems that for many make child rearing and family life difficult.

A growing number of Arkansas families are either single parents providing the sole support of their families or dual earner families.

Extension's goal has been to help parents become more effective by learning to take better care of themselves, improving their understanding of the development of children and by learning appropriate methods to motivate, nurture and guide children.

To help parents become more effective, a variety of programs, such as effective discipline, self-esteem building, child growth and development and enriching learning environments have been implemented.

Impact:

Output Indicators

- 987 Number of parenting education programs provided.
- 9926 Number of clientele attending parenting education programs.
- 266 Number of parenting educational resources developed.

Outcome Indicators

- 1461 Number of parents who report that they plan to adopt one or more recommended parenting practices.
- 419 Number of adolescent parents (28 years or age or younger) who report that they plan to adopt one or more recommended parenting practices.*
- 820 Number of parents who report that they have adopted one or more recommended parenting practice.*
- 208 Number of adolescent parents (18 years of age or younger) who report that they have adopted one or more recommended parenting practice.
- 1246 Number of parents who report that they believe they are doing a better job of parenting.

265 Number of adolescent parents (18 years of age or younger) who report that they believe they are doing a better job of parenting.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

- **Youth Development -**

- AR Goal 5 - Program Area 20. Developing Youth

Overview:

Arkansas youth face many challenges as they grow to adulthood. Today, too many children and youth are adrift, without a steady moral compass to direct their daily behavior or to plot a thoughtful and responsible course for their lives. At least some of the moral confusion that young people experience stems from the conduct and attitudes of prominent adults as well as from the cultural messages reflected in the media. Some of the confusion has roots in the behavior of parents who lack the ability or commitment to be responsible parents. Some of the confusion reflects the contradictions apparent in American society. Children and youth need clear, consistent messages about personal conduct and public responsibility.

Many factors influence why some young people have success in life and why others have a harder time. Economic circumstances, genetics, peers, family, and trauma all play a role. All children and youth experience some degree of risk, as they progress from birth to adulthood; but an increasing proportion of children are at substantially higher risk for negative outcomes. These children and youth do not have the advantages that promote optimal, healthy development of the body, mind, and spirit. Many youth do not have opportunities to experience positive stimulation for growth or nurturing support from family, friends, and community.

Research shows that we can help youth become capable, competent, responsible, caring adults if we provide them with a healthy start, caring adults, safe places, structured activities, marketable skills, the opportunity to serve, positive experiences, experimental learning, and the opportunity to develop basic life skills. We also know that the more protective factors in a young person's life, in comparison with the risk factors, makes a significant difference in the route they take to adulthood and beyond.

Using a discussion and priority setting process, the County Extension Councils in 100 percent of Arkansas counties have identified developing youth as a major emphasis for their long range educational programs. Educational programs within the FY4H program for youth are designed to provide youth with positive opportunities to learn and interact with peers and adults, provide

leadership development and focus on life skills enhancement through research-based educational programs focusing on Family and Consumer Sciences, Science and Technology, Community and Economic Development, Agriculture and Natural Resources.

Impact:

Output Indicators General Youth Development

- 10527 Number of youth who participated in competitive activities. (Registration forms - eliminate duplications)
- 7814 Number of youth who participated in community service projects. (4-H Enrollment Forms and Program evaluation questions)

Outcome Indicators General Youth Development

- 28111 Number of youth who reported working in one or more educational project area. (4-H Enrollment Form)
- 16260 Number of youth who reported completing 1 or 2 educational project area. (4-H Enrollment Form)
- 4408 Number of youth who reported completing 3 or more educational project areas. (4-H Enrollment Form)
- 4941 Number of youth who reported spending one or more hours a week in providing service to their community or others. (4-H Enrollment Form)
- 13349 Number of youth involved in educational programs who report they have adopted at least one new recommended skill/practice. (4-H Enrollment Form)
- 14064 Number of youth involved in educational programs who report they have changed one or more practices as a result of the educational program. (4-H Enrollment Form)

Output Indicators Basic Life Skills*

- 2212 Number of educational programs held for youth that target basic life skills. (Registration forms/Blue Ribbon)
- 55656 Number of youth who participated in educational programs designed to teach basic life skills. (Registration forms/Blue Ribbon)

*Basic Life Skills include decision-making, keeping records, critical thinking, learning to learn, character, self-esteem, teamwork, self-discipline, etc.)

Outcome Indicators Basic Life Skills

- 13503 Number of youth who report improved decision- making skills. (Program evaluation questions)
- 4781 Number of youth who report improved record keeping skills. (Program evaluation questions)
- 9385 Number of youth who report improved communication skills. (Program evaluation questions)

Output Indicators Social Competency Life Skills*

- 1346 Number of educational programs targeting social competency life skills for youth. (Registration forms/Blue Ribbon)
- 29240 Number of youth who participated in educational program designed to promote social competency life skills. (Registration forms/Blue Ribbon)
- 1142 Number of educational programs designed to give youth and adults the opportunity to work together. (Registration form/Blue Ribbon)

*Life skills related to social competencies include: Nurturing relationships, sharing, empathy, concern for others, accepting differences, conflict resolution, social skills, cooperation, communication, etc.

Outcome Indicators Social Competencies

- 7925 Number of youth who report improved relationships with peers. (Program evaluation questions)
- 6037 Number of youth who report improved relationships with parents. (Program evaluation questions)
- 5928 Number of youth who report improved relationships with non-parental adults. (Program evaluation questions)
- 7753 Number of youth who report improved conflict management skills. (Program evaluation questions)
- 8157 Number of youth who report improved character behaviors. (Program evaluation questions)

Output Indicators Youth Leadership and Volunteer Development Life-Skills*

- 695 Number of educational programs for youth focusing on youth leadership/volunteer development. (Registration forms/Blue Ribbon)
- 11774 Number of youth participating in youth leadership/volunteer development programs. (Registration forms/Blue Ribbon)
- 2859 Number of new youth participants in leadership and volunteer programs. (Registration forms/Blue Ribbon)

*Life skills related to youth leadership and volunteer development include planning and organizing, goal setting, service learning, teamwork, contributing to group effort, responsible citizenship, etc.

Outcome Indicators Youth Leadership and Volunteer Development

- 4358 Number of youth who report improved planning and organizing skills.

- (Program evaluation questions)
- 1236 Number of youth volunteers conducting educational programs. (4-H Enrollment Form)
 - 27230 Number of volunteer hours contributed by youth to educational programs. (4-H Enrollment Form)
 - 3038 Number of youth volunteers conducting community service programs. (4-H Enrollment Form)
 - 961 Number of community projects implemented by youth. (4-H Enrollment Form)
 - 66927 Number of volunteer hours contributed by youth to community service programs. (4-H Enrollment Form)
 - 1077 Number of youth in new volunteer leadership positions. (4-H Enrollment Form)
 - 1417 Number of youth in new elected leadership positions. (4-H Enrollment Form)

Note: Targeted Life Skills for Arkansas are decision making, goal setting, communicating, conflict resolution, community service, leadership, teamwork, character, healthy life styles.

Source of Federal Funds: Smith Lever 3b and 3c

Scope of Impact: Arkansas

Allocated Resources for Goal 5:

Total: 139.74 FTE, Federal (3b&c) - \$2,022,778

Integrated: \$384,870